

“Afforestation”: Creating forests to address Climate Change DRAFT

Afforestation is the practice of creating forests or establishing native vegetation on land which was previously in other uses such as pasture, covered with non-native species or contained man-made structures.

Recommendation:

The Forestry Working Group recommends that the state support landowners and local governments in afforestation programs to create forests or native vegetation on land within urban areas and in suburban areas. For clarity of definitions, “managed timberlands” outside of urban or suburban areas come under the definition of “re-forestation” through existing legal requirements to replant trees after timber harvests. These timberland practices are not included in the afforestation working paper.

Does afforestation reduce CO2?

Increasing levels of carbon dioxide and other greenhouse gases (GHG) in the atmosphere are of growing concern globally and locally, and afforestation through urban forests plays a role in the fight against climate change. Urban forests reduce atmospheric carbon dioxide directly and indirectly. Urban forests and trees around buildings can **directly** reduce the need for heating and air conditioning use, thereby reducing emission of GHGs associated with consuming electricity, natural gas and fuel oil. Also, when trees normally die off, the stored carbon is released into the atmosphere through decomposition. If the biomass from removed trees is, instead, used as feedstock for power plants, then GHG that would have occurred with other fuel sources are displaced. This **indirect** benefit may be quantified and reported as a benefit of afforestation.

California’s Urban Forest protocols

In July 2008, The California Climate Action Registry released a draft Protocol describes, in detail, how to create, maintain and calculate urban forest sites. Through its Climate Action Reserve Program, the California Registry supplies protocols to quantify GHG emission reductions (or offsets). The protocols clearly define project sites and boundaries; ownership (municipality, educational institution, utility, and/or a person/organization working in partnership with any of the entities); issues regarding additionality, leakage, complying with existing regulation; GHG assessment boundaries and reduction calculation methods; quantifying CO2 sequestration; permanence of a project for 100 years; and finally, on-going tree monitoring and maintenance plans. The Reserve oversees and accredits independent third-party verifiers. Meeting these Protocol requirements allows the site to qualify for offsets.

Washington State’s Urban Forest Program

The 2008 Legislature created a statewide “Evergreen Communities” urban forest program to increase the environmental and social benefits from urban forests.

Tree planting within urban areas supply the climate change benefits stated above, but in addition they can control stormwater runoff, reduce air and water pollution, recycle green waste, as well as revitalize neighborhoods, provide job training opportunities and increase economic activity in business areas. Potential adverse impacts may include the risk of creating monoculture urban forests, introduction of invasive plants/pests/diseases; increase use of water for maintenance; root conflicts with sidewalks, curbs, gutters. The legislature appropriated funds to Community Trade and Economic Development (CTED) and Department of Natural Resources (DNR) to:

- research existing urban forests programs
- develop a model ordinance for local government
- develop criteria which could qualify local governments for future funding
- assess and inventory two counties' urban forests
- create model on how to conduct such inventories

Conclusion:

The Forestry Working Group should encourage the CTED and DNR to include California's Protocols as part of the new Urban Forest program in Washington. Furthermore, the working group should support funding in the 2009 Legislative session to establish a grants program within CTED for local governments to create afforestation projects through an urban forest projects as defined in the California Protocol.